TEL-TRU MANUFACTURING COMPANY

PRESSURE TRANSMITTERS

World-Class Instruments | *Since 1916*

www.teltru.com

Tel-Tru Manufacturing Company
408 St. Paul St., Rochester, New York 14605 USA
Phone: 585-232-1440 • 800-232-5335 • Fax: 585-232-3857 • E-mail: info@teltru.com • Web: www.teltru.com

Tel-Tru Pressure Transmitters are offered in a compact all welded stainless steel housing with a variety of available connections for the pressure port and electrical connections for output signal transmission.

- The type of pressure transducer or sensor used is appropriate to the application and accuracy requirement.
- Electronics within the housing amplify and condition the changing transducer signal to an industry standard output signal, which is transmitted to a receiver device such as a readout, recorder, data logger or controller.

Applications for Pressure Transmitters:

- Industrial Lab and Test Equipment
- Machine Control
- Oil and Gas Industry
- Liquid Level
- Sanitary Processing
- Food and Beverage Processing
- OEM Equipment
- Hydraulics and Pneumatics
- Petrochemical
- Specialty Processing
- Pharmaceuticals
- Waste Water Treatment

Selecting a pressure transmitter

Application and environmental conditions affect transmitter selection:

Type of service:
- Oil/gas
- Process
- Power plant general machinery
- OEM
- Waste water, etc.

Fluid conditions
- Static
- Varying pressure
- Pulsation
- Min/max temperatures
- Type of fluid
  - Sour gas
  - Water
  - Steam
  - Sludge, etc.

Options are shown on the chart inside—for proper selection consider:

Output
- Requirements of receiving equipment
- Supply voltage available
- Distance signal will travel

Accuracy
- Application need
- Cost

Pressure range
- Pressure limits of application
- Scaling of output signal—best when 50% to 80% of operating range is within mid-scale

Process connection
- Application requirements
- Pressure in system
- Media type being measured

Electrical connection
- Plant standards
- Application requirements

Tel-Tru Industrial Grade Units:

- Sensor is thick film strain gauge, on ceramic diaphragm
- ± .25% accuracy
- Ranges From 30" Hg-0 psi to 0-9,000 psi
- CE compliant
- Intrinsically Safe models available with FM and CSA approval
- User selectable modular design
- Zero adjustment standard ± 10% of range

Tel-Tru Precision Grade Units:

- Thin film sensor bonded to welded stainless steel diaphragm
- ± .25% accuracy standard; ± .10% available for some models
- Ultra high pressure up to 100,000 psi
- CE compliant
- Non-filled (dry) design and construction of Flush Diaphragm units for rugged service
- Intrinsically Safe approval pending for some models
- User selectable modular design
- Customization available
- NIST traceable certificate standard (except P131)

The **CE** mark on Tel-Tru Pressure Transmitters indicates they are in compliance with European Standards, incorporating components designed to protect the device from and neutralize the effects of Radio Frequency Interference (RFI), Electromagnetic Interference (EMI), and Electrostatic Discharge (ESD). This "electrical noise" comes from walkie-talkies (RFI), AC motors used in the vicinity of the transmitter installation (EMI), or from sources within the transmitter itself (ESD).

See www.teltru.com for detailed specifications and indepth product information.

PRESSURE TRANSMITTERS

Tel-Tru pressure transmitters are accurate, robust, and built for long life; even in the harshest environments. Configure for your application with user selected modular design.

STANDARD MODELS ➤
Intrinsically Safe Models ➤

APPLICATIONS ➤

STANDARD SPECIFICATIONS ➤

Proof Pressure:
Burst Pressure:
Response Time:
Wetted Materials:
Protection Class:
Temperature Performance:
- Operating Temperature Range (OTR)
- Compensated Temperature Range (CTR)
- Temperature Effect on Zero over the CTR
- Temperature Effect on Span over the CTR

Zero and Span Balance:
Long-Term Stability:
Insulation Resistance:

Tel-Tru Pressure Transmitters—

Accurate, Robust, and Built to Last!

OTHER OPTIONS:
Ranges, process and electrical connections, and options are available upon request.

Please visit ***www.teltru.com*** *for complete specifications and product information.*

THREADED
100 SERIES

Industrial Grade Threaded	Precision Grade Threaded	Precision Grade Threaded OEM
		
P111 **P112**	**P121** **-**	**P131** **-**
• Hydraulics and Pneumatics • Industrial Process • Laboratory and Test Equipment • Marine and Offshore • Pump and Compressors	• Hydraulics and Pneumatics • Injection Molding Machines • Laboratory and Test Equipment • Marine and Offshore • Petrochemical • Pump and Compressors	• Brake Test Equipment • Hydraulics and Pneumatics • Marine and Offshore • Off Highway Equipment • Petrochemical • Pump and Compressors

STANDARD SPECIFICATIONS (see www.teltru.com for non-standard specs):

1.3X FS thru 5X FS	2X FS	2X FS
1.7X FS thru 10X FS	5X FS	5X FS
<3 ms	<5 ms	<5 ms
Ceramic and 316L SS	316 and 15-5 SS	316 and 15-5 SS
IP65	NEMA 4X	NEMA 4X
-13 to 212°F (-25 to 100°C)	-40 to 200°F (-40 to 93.3°C)	-40 to 200°F (-40 to 93.3°C)
14 to 131°F (-10 to 55°C)	0 to 170°F (-17.8 to 76.7°C)	0 to 170°F (-17.8 to 76.7°C)
±0.014% FS/°F (±0.025% FS/°C)	±0.015% FS/°F (±0.027% FS/°C)	±0.02% FS/°F (±0.036% FS/°C)
±0.008% FS/°F (±0.015% FS/°C)	±0.015% FS/°F (±0.027% FS/°C)	±0.02% FS/°F (±0.036% FS/°C)
±0.5% FSO	±1.0% FSO	±1.0% FSO
±0.5% FSO/year	±0.25% FSO/year	±0.50% FSO/year
100 M-ohms @ 250 Vdc	1000 M-ohms @ 50 Vdc	1000 M-ohms @ 50 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	11-40 Vdc	**A**
0-20 mA	8-40 Vdc	**D**
1-5 Vdc	11-40 Vdc	**G**
0-10 Vdc	14-40 Vdc	**K**

ACCURACY	CODE
0.25%	**3**

PRESSURE RANGES
-30" Hg -0 psi thru 0-9,000 psi

MODE	CODE
Gage Pressure Ref.	**G**
Absolute Pressure Ref.	**A**
Vacuum Range	**V**
Compound Range	**C**

PROCESS CONN.	CODE
1/4" NPT (M)	**01**
1/2" NPT (M)	**03**
G1/2 (M)	**37**
G1/4 (M)	**47**

ELECTRICAL CONN.	CODE
DIN 43650 conn. w/mate	**D200**
Mini DIN 43650C conn. w/mate	**D100**
1/2" NPT (M) conduit w/X'	**C4XX**
X' wire w/PG7 cable gland	**C3XX**
6 pin HE 302 (Bendix)	**F100**
4 pin M12 (Lumberg)	**F200**

SENSOR SEALS	
NBR (Buna-N)	**C4**
CR (Neoprene)	**C5**
EPDM	**C6**
Vitron	**C7**

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	**A**
0-5 Vdc (3-wire)	8-38 Vdc	**B**
1-2 mV/V (4-wire)	2-15 Vdc	**C**
1-10 Vdc output	16-38 Vdc	**M**

ACCURACY	CODE
0.25%	**3**
0.10%	**6**

PRESSURE RANGES
-30" Hg -0 psi thru 0-15,000 psi

MODE	CODE
Gauge Pressure Ref.	**G**
Absolute Pressure Ref.	**A**
Vacuum Range	**V**
Compound Range	**C**

PROCESS CONN.	CODE
1/4" NPT (M)	**01**
1/4" NPT (F)	**02**
1/2" NPT (M)	**03**
1/8" NPT (M)	**05**
1/8" NPT (F)	**06**
7/16-20 UNF (M)	**07**

ELECTRICAL CONN.	CODE
X' wire pigtail (NEMA 4X)	**A4XX**
1/2" NPT (M) conduit w/X' wire	**A6XX**
Bendix 4-pin connector	**B100**
Bendix 6-pin connector	**B200**
Mini DIN 43650C conn. w/mate	**D100**

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	**A**
0-5 Vdc (3-wire)	8-38 Vdc	**B**
1-10 Vdc output	16-38 Vdc	**M**

ACCURACY	CODE
0.50%	**2**

PRESSURE RANGES
0-15 psi thru 0-15,000 psi

MODE	CODE
Gage Pressure Ref.	**G**

PROCESS CONN.	CODE
1/4" NPT (M)	**01**
7/16-20 UNF (M)	**07**

ELECTRICAL CONN.	CODE
X' wire pigtail (NEMA 4X)	**A4XX**
Mini DIN 43650C conn. w/mate	**D100**

Minimum order quantity 10 pieces

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THREADED
100 SERIES

	Precision Grade Rugged	Precision Grade Mid-High Pressure	Precision Grade Ultra High Pressure
			
STANDARD MODELS ➤	**P141**	**P151**	**P161**
Intrinsically Safe Models ➤	-	-	-
APPLICATIONS ➤	• Hydraulics and Pneumatics • Laboratory and Test Equipment • Marine and Offshore • Petrochemical • Pump and Compressors	• High Pressure Cutting Systems • Industrial Process Control • Laboratory and Test Equipment • Stamping Presses	• High Pressure Cutting Systems • Industrial Process Control • Laboratory and Test Equipment • Stamping Presses
STANDARD SPECIFICATIONS ➤ (see www.teltru.com for non-standard specs):			
Proof Pressure:	2X FS	2X FS (75 kpsi max)	2X FS (160 kpsi max)
Burst Pressure:	5X FS	3X FS (90 kpsi max)	5X FS (180 kpsi max)
Response Time:	<5 ms	<5 ms	<5 ms
Wetted Materials:	316 and 15-5 SS	15-5 SS	15-5 SS
Protection Class:	NEMA 4X	NEMA 4X	NEMA 4X
Temperature Performance:			
• Operating Temperature Range (OTR)	-40 to 200°F (-40 to 93.3°C)	-40 to 200°F (-40 to 93.3°C)	-40 to 200°F (-40 to 93.3°C)
• Compensated Temperature Range (CTR)	0 to 170°F (-17.8 to 76.7°C)	0 to 170°F (-17.8 to 76.7°C)	0 to 170°F (-17.8 to 76.7°C)
• Temperature Effect on Zero over the CTR	±0.015% FS/°F (±0.027% FS/°C)	±0.015% FS/°F (±0.027% FS/°C)	±0.015% FS/°F (±0.027% FS/°C)
• Temperature Effect on Span over the CTR	±0.015% FS/°F (±0.027% FS/°C)	±0.015% FS/°F (±0.027% FS/°C)	±0.015% FS/°F (±0.027% FS/°C)
Zero and Span Balance:	±1.0% FSO	±1.0% FSO	±1.0% FSO
Long-Term Stability:	±0.25% FSO/year	±0.25% FSO/year	±0.25% FSO/year
Insulation Resistance:	1000 M-ohms @ 50 Vdc	1000 M-ohms @ 50 Vdc	1000 M-ohms @ 50 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	A
0-5 Vdc (3-wire)	8-38 Vdc	B
1-2 mV/V (4-wire)	16-38 Vdc	C

ACCURACY	CODE
0.25%	3
0.10%	6

PRESSURE RANGES
-30" Hg -0 psi thru 0-15,000 psi

MODE	CODE
Gage Pressure Ref.	G
Absolute Pressure Ref.	A
Vacuum Range	V
Compound Range	C

PROCESS CONN.	CODE
1/4" NPT (F)	02
1/4" NPT (M)	01
7/16-20 UNF (M)	07
Autoclave F-250-C	11
1/4" - 28 UNF (M)	57
1/4" - 28 UNF (F)	58

ELECTRICAL CONN.	CODE
X' wire pigtail (NEMA 4X)	A4XX
1/2" NPT (M) conduit w/X' wire	A6XX
Bendix 4-pin connector	B100
Bendix 6-pin connector	B200
Mini DIN 43650C conn. w/mate	D100
DIN 43650 conn. w/mate	D200

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	A
0-5 Vdc (3-wire)	8-38 Vdc	B
1-2 mV/V (4-wire)	2-15 Vdc	C
1-10 Vdc output	16-38 Vdc	K

ACCURACY	CODE
0.50%	2
0.25%	3
0.10%	6

PRESSURE RANGES
0-15,000 psi thru 0-60,000 psi

MODE	CODE
Gage Pressure Ref.	G

PROCESS CONN.	CODE
F-250-C (use ≤ 60,000 psi)	11
F-312-C (use > 60,000 psi)	13

ELECTRICAL CONN.	CODE
X' wire pigtail (NEMA 4X)	A4XX
1/2" NPT (M) conduit w/X' wire	A6XX
Bendix 4-pin connector	B100
Bendix 6-pin connector	B200
Mini DIN 43650C conn. w/mate	D100
DIN 43650 conn. w/mate	D200

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	A
0-5 Vdc (3-wire)	8-38 Vdc	B
1-2 mV/V (4-wire)	2-15 Vdc	C
1-10 Vdc output	16-38 Vdc	K

ACCURACY	CODE
0.50%	2
0.25%	3
0.10%	6

PRESSURE RANGES
0-25,000 psi thru 0-100,000 psi

MODE	CODE
Gage Pressure Ref.	G

PROCESS CONN.	CODE
F-250-C (use ≤ 60,000 psi)	11
F-312-C (use > 60,000 psi)	13

ELECTRICAL CONN.	CODE
X' wire pigtail (NEMA 4X)	A4XX
1/2" NPT (M) conduit w/X' wire	A6XX
Bendix 4-pin connector	B100
Bendix 6-pin connector	B200
Mini DIN 43650C conn. w/mate	D100
DIN 43650 conn. w/mate	D200

Tel-Tru Pressure Transmitters—

Accurate, Robust, and Built to Last!

OTHER OPTIONS:
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OTHER OPTIONS - Ranges, process and electrical connections, and options are available upon request. Please visit www.teltru.com for complete specifications and product information.

STANDARD MODELS ➤
Intrinsically Safe Models ➤

APPLICATIONS ➤

STANDARD SPECIFICATIONS ➤

Proof Pressure:
Burst Pressure:
Response Time:
Wetted Materials:
Protection Class:
Temperature Performance:
- Operating Temperature Range (OTR)
- Compensated Temperature Range (CTR)
- Temperature Effect on Zero over the CTR
- Temperature Effect on Span over the CTR

Zero and Span Balance:
Long-Term Stability:
Insulation Resistance:

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FLUSH 200 SERIES

Industrial Grade Flush Diaphragm

P211
P212

- Industrial Process Control
- Laboratory and Test Equipment
- Coating Machinery
- Paint Systems
- Sealant Systems

STANDARD SPECIFICATIONS (see www.teltru.com for non-standard specs):

Proof Pressure:	1.3X FS thru 2X FS
Burst Pressure:	1.7X FS thru 3.8X FS
Response Time:	<3 ms
Wetted Materials:	316L SS
Protection Class:	IP65
Temperature Performance:	
• Operating Temperature Range (OTR)	-5 to 185°F (-15 to 85°C)
• Compensated Temperature Range (CTR)	14 to 131°F (-10 to 55°C)
• Temperature Effect on Zero over the CTR	±0.014% FS/°F (±0.025% FS/°C)
• Temperature Effect on Span over the CTR	±0.008% FS/°F (±0.015% FS/°C)
Zero and Span Balance:	±0.5% FSO
Long-Term Stability:	±0.5% FSO/year
Insulation Resistance:	100 M-ohms @ 250 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	11-40 Vdc	A
0-20 mA	8-40 Vdc	D
1-5 Vdc output	11-40 Vdc	G
0-10 Vdc output	14-40 Vdc	K

ACCURACY	CODE
0.25%	3

PRESSURE RANGES
-30" Hg -15 psi thru 0-9,000 psi

MODE	CODE
Gage Pressure Ref.	G
Absolute Pressure Ref.	A
Compound Range	C

PROCESS CONN.	CODE
G1/2 Flush Diaph w/1 o-ring NBR	**38
G1/2 Flush Diaph w/2 o-ring NBR	**39
G3/4 Flush Diaph w/1 o-ring NBR	**41
G3/4 Flush Diaph w/2 o-ring NBR	**42
G1 Flush Diaph w/1 o-ring NBR	**44
1/2" NPT (M) Flush Diaphragm without o-ring	46

ELECTRICAL CONN.	CODE
DIN 43650 conn. w/mate	D200
Mini DIN 43650C conn. w/mate	D100
1/2" NPT (M) conduit w/X' wire	C4XX
X' wire w/PG7 cable gland	C3XX
6 pin HE 302 (Bendix)	F100
4 pin M12 (Lumberg)	F200

** Alternate"O"-ring materials available

Precision Grade Flush Diaphragm

P221
-

- Adhesives and Plastics Coating Machinery
- Paint Systems
- Sealant Systems
- Slurries
- Non-Filled Flush Diaphragm Process Connection

Proof Pressure:	2X FS
Burst Pressure:	5X FS (15 kpsi max)
Response Time:	<3 ms
Wetted Materials:	15-5 SS
Protection Class:	NEMA 4X
Temperature Performance:	
• Operating Temperature Range (OTR)	-40 to 200°F (-40 to 93.3°C)
• Compensated Temperature Range (CTR)	0 to 170°F (-17.8 to 76.7°C)
• Temperature Effect on Zero over the CTR	±0.015% FS/°F (±0.027% FS/°C)
• Temperature Effect on Span over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Zero and Span Balance:	±1.0% FSO
Long-Term Stability:	±0.25% FSO/year
Insulation Resistance:	1000 M-ohms @ 50 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	A
0-5 Vdc (3-wire)	8-38 Vdc	B
1-2 mV/V (4-wire)	2-15 Vdc	C
0-10 Vdc output	16-38 Vdc	K

ACCURACY	CODE
0.50%	2
0.25%	3

PRESSURE RANGES
0-100 psi thru 0-7,500 psi

MODE	CODE
Gage Pressure Ref.	G
Absolute Pressure Ref.	A

PROCESS CONN.	CODE
3/4-16 UNF (M) Flush Diaph w/o-ring	17
BSP 1/2" (M) G1/2	57

ELECTRICAL CONN.	CODE
X' wire pigtail (NEMA 4X)	A4XX
1/2" NPT (M) conduit w/X' wire	A6XX
Bendix 4-pin connector	B100
Bendix 6-pin connector	B200
Mini DIN 43650C conn. w/mate	D100

SANITARY 300 SERIES

Industrial Grade Sanitary

P311
P312

- Brewers
- Dairy
- Food and Beverage Processing
- Pharmaceutical

Proof Pressure:	1.3X FS thru 4X FS
Burst Pressure:	1.7X FS thru 8X FS
Response Time:	<3 ms
Wetted Materials:	316L SS
Protection Class:	IP65
Temperature Performance:	
• Operating Temperature Range (OTR)	-5 to 185°F (-15 to 85°C)
• Compensated Temperature Range (CTR)	14 to 131°F (-10 to 55°C)
• Temperature Effect on Zero over the CTR	±0.022% FS/°F (±0.04% FS/°C)
• Temperature Effect on Span over the CTR	±0.008% FS/°C (±0.015% FS/°C)
Zero and Span Balance:	±0.5% FSO
Long-Term Stability:	±0.5% FSO/year
Insulation Resistance:	100 M-ohms @ 250 Vdc+

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	11-40 Vdc	A
0-20 mA	8-40 Vdc	D
1-5 Vdc output	11-40 Vdc	G
0-10 Vdc output	14-40 Vdc	K

ACCURACY	CODE
0.25%	3

PRESSURE RANGES
-30" Hg -0 psi thru 0-600 psi

MODE	CODE
Gage Pressure Ref.	G
Absolute Pressure Ref.	A
Vacuum Range	V
Compound Range	C

PROCESS CONN.	CODE
2" Tri-Clamp (316L SS)	28
1" Tri-Clamp (316L SS)	26
1-1/2" Tri-Clamp (316L SS)	27

ELECTRICAL CONN.	CODE
DIN 43650 conn. w/mate	D200
Mini DIN 43650C conn. w/mate	D100
1/2" NPT (M) conduit w/X' wire	C4XX
X' wire w/PG7 cable gland	C3XX
6 pin HE 302 (Bendix)	F100
4 pin M12 (Lumberg)	F200

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STANDARD MODELS ➤
Intrinsically Safe Models ➤

APPLICATIONS ➤

STANDARD SPECIFICATIONS ➤

Proof Pressure:
Burst Pressure:
Response Time:
Wetted Materials:
Protection Class:
Temperature Performance:
- Operating Temperature Range (OTR)
- Compensated Temperature Range (CTR)
- Temperature Effect on Zero over the CTR
- Temperature Effect on Span over the CTR

Zero and Span Balance:
Long-Term Stability:
Insulation Resistance:

Tel-Tru Pressure Transmitters—

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OTHER OPTIONS:
Ranges, process and electrical connections, and options are available upon request.

Please visit ***www.teltru.com*** *for complete specifications and product information.*

SANITARY 300 SERIES

Precision Grade Sanitary

P321
-

- Biotech
- Cosmetics
- Dairy
- Food and Beverage Processing
- Pharmaceutical

STANDARD SPECIFICATIONS (see www.teltru.com for non-standard specs):

Proof Pressure:	2X FS
Burst Pressure:	5X FS (5 kpsi max)
Response Time:	<5 ms
Wetted Materials:	316L SS
Protection Class:	NEMA 4X
Temperature Performance:	
Operating Temperature Range (OTR)	-40 to 200°F (-40 to 93.3°C)
Compensated Temperature Range (CTR)	0 to 170°F (-17.8 to 76.7°C)
Temperature Effect on Zero over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Temperature Effect on Span over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Zero and Span Balance:	±1.0% FSO
Long-Term Stability:	±0.25% FSO/year
Insulation Resistance:	1000 M-ohms @ 50 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	A
0-5 Vdc (3-wire)	8-38 Vdc	B
0-10 Vdc output	16-38 Vdc	K

ACCURACY	CODE
0.25%	3
0.10%	6

PRESSURE RANGES
-30" Hg -0 psi thru 0-1,000 psi

MODE	CODE
Gage Pressure Ref.	G
Absolute Pressure Ref.	A
Vacuum Range	V
Compound Range	C

PROCESS CONN.	CODE
2" Tri-Clamp	28
1-1/2" Tri-Clamp	27
1" Tri-Clamp	26
1/2" Tri-Clamp (0-60 psi & above)	24
3/4" Tri-Clamp (0-60 psi & above)	25
2-1/2" Tri-Clamp	29

ELECTRICAL CONN.	CODE
X' wire pigtail (NEMA 4X)	A4XX
1/2" NPT (M) conduit w/X' wire	A6XX
Bendix 4-pin connector	B100
Bendix 6-pin connector	B200
Mini DIN 43650C conn. w/mate	D100

SUBMERSIBLE 400 SERIES

Industrial Submersible

P411
P412

- Irrigation
- Level and Depth Measurement
- Underground Storage
- Water Resource
- Well Water

Proof Pressure:	1.6X FS thru 4X FS
Burst Pressure:	2.8X FS thru 8X FS
Response Time:	<3 ms
Wetted Materials:	Ceramic and 316L SS
Protection Class:	IP68
Temperature Performance:	
Operating Temperature Range (OTR)	-13 to 185°F (-25 to 85°C)
Compensated Temperature Range (CTR)	14 to 131°F (-10 to 55°C)
Temperature Effect on Zero over the CTR	±0.014% FS/°F (±0.025% FS/°C)
Temperature Effect on Span over the CTR	±0.006% FS/°F (±0.010% FS/°C)
Zero and Span Balance:	±0.5% FSO
Long-Term Stability:	±0.5% FSO/year
Insulation Resistance:	100 M-ohms @ 250 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	11-40 Vdc	A
0-20 mA	8-40 Vdc	D
1-5 Vdc output	11-40 Vdc	G
0-10 Vdc output	14-40 Vdc	K

ACCURACY	CODE
0.25%	3

PRESSURE RANGES
0-25 in. WC thru 0-200 psi

MODE	CODE
Gage Pressure Ref.	G

PROCESS CONN.	CODE
G1/4 w/316L SS Protective Cap when P ≥ 15 psi (0-50 ft. WC)	48
G1/2 w/316L SS Protective Cap when P ≤ 10 psi (0-20 ft. WC)	49

ELECTRICAL CONN.	CODE
Vented cable X'	C2XX
Vented (Tefzel) ETFE cable X'	A3XX

Precision Grade Submersible

P421
-

- Heavy Slurries
- Hydro Electric
- Level and Depth Measurement
- Waste Water Treatment

Proof Pressure:	2X FS
Burst Pressure:	5X FS
Response Time:	<5 ms
Wetted Materials:	316L SS
Protection Class:	IP68
Temperature Performance:	
Operating Temperature Range (OTR)	-40 to 200°F (-40 to 93.3°C)
Compensated Temperature Range (CTR)	0 to 170°F (-17.8 to 76.7°C)
Temperature Effect on Zero over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Temperature Effect on Span over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Zero and Span Balance:	±1.0% FSO
Long-Term Stability:	±0.25% FSO/year
Insulation Resistance:	1000 M-ohms @ 50 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	A
0-5 Vdc (3-wire)	8-38 Vdc	B
.5 - 4.5 Vdc output	5 Vdc	J

ACCURACY	CODE
0.50%	2
0.25%	3

PRESSURE RANGES
0-5 psi thru 0-500 ft. WC

MODE	CODE
Gage Pressure Ref.	G

PROCESS CONN.	CODE
Flush Clog-Free Sensor (w/3" x 1" standoff)	36

ELECTRICAL CONN.	CODE
Submersible 1/2" NPT (M) conduit w/X' vented polyurethane cable	G1XX
Submersible 1/2" NPT (M) conduit w/X' vented Tefzel cable	G2XX

PRESSURE TRANSMITTERS

Tel-Tru pressure transmitters are accurate, robust, and built for long life; even in the harshest environments. Configure for your application with user selected modular design.

STANDARD MODELS ➤
Intrinsically Safe Models ➤

APPLICATIONS ➤

STANDARD SPECIFICATIONS ➤

Proof Pressure:
Burst Pressure:
Response Time:
Wetted Materials:
Protection Class:
Temperature Performance:
- Operating Temperature Range (OTR)
- Compensated Temperature Range (CTR)
- Temperature Effect on Zero over the CTR
- Temperature Effect on Span over the CTR

Zero and Span Balance:
Long-Term Stability:
Insulation Resistance:

Tel-Tru Pressure Transmitters—

Accurate, Robust, and Built to Last!

OTHER OPTIONS:
Ranges, process and electrical connections, and options are available upon request.

Please visit ***www.teltru.com*** *for complete specifications and product information.*

SUBMERSIBLE 400 SERIES

Precision Grade Submersible

P431
-

- Irrigation
- Level and Depth Measurement
- Underground Storage
- Water Resource
- Well Water
- Coal Bed Methane

STANDARD SPECIFICATIONS (see www.teltru.com for non-standard specs):

Proof Pressure:	2X FS
Burst Pressure:	5X FS
Response Time:	<5 ms
Wetted Materials:	316 and 15-5 SS
Protection Class:	IP68
Temperature Performance:	
Operating Temperature Range (OTR)	-40 to 200°F (-40 to 93.3°C)
Compensated Temperature Range (CTR)	0 to 170°F (-17.8 to 76.7°C)
Temperature Effect on Zero over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Temperature Effect on Span over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Zero and Span Balance:	±1.0% FSO
Long-Term Stability:	±0.25% FSO/year
Insulation Resistance:	1000 M-ohms @ 50 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	**A**
0-5 Vdc (3-wire)	8-38 Vdc	**B**
.5 - 4.5 Vdc output	5 Vdc	**J**

ACCURACY	CODE
0.25%	**3**
0.10%	**6**

PRESSURE RANGES
0-3 psi thru 0-1,500 ft. WC

MODE	CODE
Gage Pressure Ref.	**G**

PROCESS CONN.	CODE
4/16-20 UNF (M) w/PVC cap (>15 psi)	**15**
7/8-14 UNF (M) w/PVC cap (<15 psi)	**20**
Stainless sludge nose	**14**
Stainless steel cap	**16**

ELECTRICAL CONN.	CODE
Vented polyurethane cable X'	**A2XX**
Vented Tefzel cable X'	**A3XX**

DIFFERENTIAL 500 SERIES

Precision Grade Differential

P521
-

- Hydraulics and Pneumatics
- Laboratory and Test
- Marine and Offshore
- Petrochemical
- Pumps and Compressors

Proof Pressure:	3X FSO
Burst Pressure:	5X FS (3 kpsi max)
Response Time:	<5 ms
Wetted Materials:	316L SS
Protection Class:	NEMA 4X
Temperature Performance:	
Operating Temperature Range (OTR)	-40 to 200°F (-40 to 93.3°C)
Compensated Temperature Range (CTR)	0 to 170°F (-17.8 to 76.7°C)
Temperature Effect on Zero over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Temperature Effect on Span over the CTR	±0.015% FS/°F (±0.027% FS/°C)
Zero and Span Balance:	±1.0% FSO
Long-Term Stability:	±0.25% FSO/year
Insulation Resistance:	1000 M-ohms @ 50 Vdc

OUTPUTS	SUPPLY	CODE
4-20 mA (2-wire)	8-38 Vdc	**A**
0-5 Vdc (3-wire)	8-38 Vdc	**B**
1-2 mV/V (4-wire)	2-15 Vdc	**C**
0-10 Vdc output	16-38 Vdc	**K**

ACCURACY	CODE
0.50%	**2**
0.25%	**3**
0.10%	**6**

PRESSURE RANGES
0-30 psid thru 0-5,000 psid

MODE	CODE
Gage Pressure Ref.	**G**

PROCESS CONN.	CODE
1/4" NPT (F)	**02**
1/4" NPT (M)	**01**
1/8" NPT (F)	**06**

ELECTRICAL CONN.	CODE
X' wire pigtail (NEMA 4X)	**A4XX**
1/2" NPT (M) conduit w/X' wire	**A6XX**
Bendix 6-pin connector	**B200**
Mini DIN 43650C conn. w/mate	**D100**

TEL-TRU PRESSURE TRANSMITTERS

Range Table and How to Order

Additional ranges available.

HOW TO ORDER:

EXAMPLE: Precision Grade Threaded, 4-20 mA, 0.25% Accuracy, 0 to 100 psi, Gage Pressure, 1/4" NPT Male, 2 ft. Wire Pigtail (NEMA 4X). **PART NUMBER:** **P121A3D9AG-01A402**

	MODEL	OUTPUT	ACCURACY	RANGE	MODE		PROCESS CONN.	ELECTRICAL CONN.
SELECT:	P121	A	3	D9A	G	-	01	A402

			Threaded							Flush			Sanitary		Submersible			Diff.
RANGES	**Unit**	**CODE**	**P11x**	**P121**	**P131**	**P141**	**P151**	**P161**	**P171**	**P21x**	**P221**	**P231**	**P31x**	**P321**	**P41x**	**P421**	**P431**	**P521**
Vacuum																		
-30" Hg to 0	in. Hg	**V1K**	X	X		X				X			X	X				
Compound																		
-30" Hg to 15	psi	**Z1A**	X	X		X				X			X	X				
-30" Hg to 30	psi	**Z2A**	X	X		X				X			X	X				
-30" Hg to 60	psi	**Z3A**	X	X		X				X			X	X				
Pressure																		
0 to 3	psi	**A8A**		X		X								X			X	
0 to 5	psi	**B1A**		X		X								X	X	X	X	
0 to 10	psi	**B4A**		X		X								X	X	X	X	
0 to 15	psi	**B7A**	X	X	X	X							X	X	X	X	X	
0 to 25	psi	**C4A**		X	X	X								X			X	
0 to 30	psi	**C6A**	X	X	X	X							X	X	X	X	X	X
0 to 50	psi	**D4A**		X	X	X								X	X	X	X	
0 to 60	psi	**D6A**	X	X	X	X				X			X	X	X	X	X	X
0 to 100	psi	**D9A**	X	X	X	X					X	X	X	X	X	X	X	X
0 to 150	psi	**E3A**	X	X	X	X				X	X	X	X	X	X	X	X	X
0 to 200	psi	**E5A**	X	X	X	X					X	X	X	X	X	X	X	X
0 to 300	psi	**E8A**	X	X	X	X					X	X	X	X		X	X	X
0 to 500	psi	**F3A**		X	X	X					X	X		X		X	X	X
0 to 600	psi	**F4A**	X	X	X	X				X	X	X	X	X				
0 to 750	psi	**F6A**		X	X	X					X	X		X		X	X	X
0 to 1,000	psi	**F8A**	X	X	X	X					X	X		X				X
0 to 1,500	psi	**H2A**	X	X	X	X				X	X	X						X
0 to 2,000	psi	**H5A**	X	X	X	X			X		X	X						X
0 to 3,000	psi	**H9A**	X	X	X	X			X		X	X						X
0 to 4,000	psi	**J4A**	X	X	X	X			X		X	X						X
0 to 5,000	psi	**J8A**		X	X	X			X		X	X						X
0 to 6,000	psi	**K1A**	X	X	X	X			X	X	X	X						
0 to 7,500	psi	**K2A**		X	X	X			X		X	X						
0 to 9,000	psi	**Q6A**	X	X	X	X			X	X	X	X						
0 to 10,000	psi	**K4A**		X	X	X			X			X						
0 to 15,000	psi	**K7A**		X	X	X	X		X									
0 to 20,000	psi	**K8A**					X		X									
0 to 25,000	psi	**L1A**					X	X	X									
0 to 30,000	psi	**L2A**					X	X										
0 to 40,000	psi	**L4A**					X	X										
0 to 50,000	psi	**L7A**					X	X										
0 to 60,000	psi	**L9A**					X	X										
0 to 75,000	psi	**Q1A**						X										
0 to 100,000	psi	**Q2A**						X										
0 to 10	in. WC	**B4P**																
0 to 16	in. WC	**B8P**																
0 to 25	in. WC	**C4P**													X			
0 to 40	in. WC	**D1P**													X			
0 to 60	in. WC	**D6P**													X			
0 to 100	in. WC	**D9P**													X		X	
0 to 150	in. WC	**E3P**													X		X	
0 to 200	in. WC	**E5P**													X		X	
0 to 300	in. WC	**E8P**													X		X	
0 to 500	in. WC	**F3P**													X		X	
0 to 750	in. WC	**F6P**													X		X	
0 to 1,000	in. WC	**F8P**													X		X	
0 to 5	ft. WC	**B1S**																
0 to 10	ft. WC	**B4S**													X	X	X	
0 to 15	ft. WC	**B7S**													X	X		
0 to 20	ft. WC	**C2S**													X	X		
0 to 25	ft. WC	**C4S**														X		
0 to 50	ft. WC	**D4S**													X	X	X	